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# Farrow-To-Finish SWINE UNIT

U.S. ...
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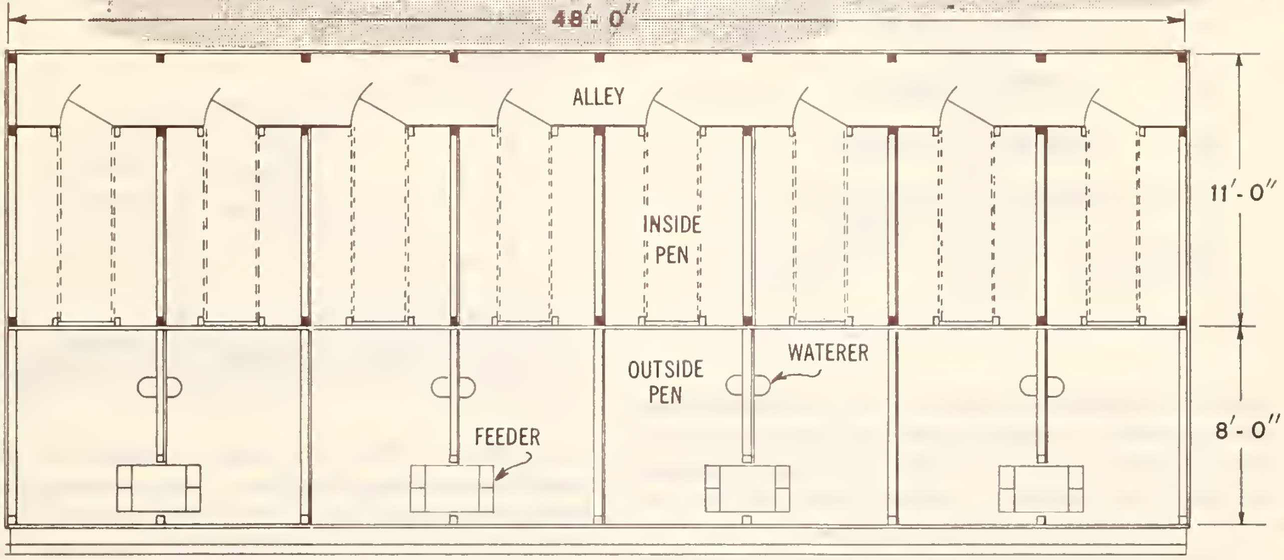
COOPERATIVE FARM BUILDING

## Plan No. 5993

(2 - SHEETS)

PLAN EXCHANGE



This construction is suitable for the production of swine by either of two management systems. Pigs can be farrowed, nursed, and finished in separate buildings on a time-scheduled program, or they can be produced on a farrow-to-finish system in the same pen.

Pens on the south receive winter sun, but the low roof with wide overhang shades the inside from hot summer sun. Waterers in the outside pens may freeze, but the outside location promotes better drying and cleaner floors in the pen, especially when pens are used for finishing. Self-feeders serve sows a week after farrowing and pigs until they are fat. Feeders are located near the outside fence to allow them to be filled manually or mechanically from a feed trailer.

Farrow-to-finish management is simple and flexible. Breeding irregularities cause no problems. Farrowing can be timed not to interfere with crop production work and to finish hogs at the peak seasonal price. Records are easily kept and performance testing on a litter basis promotes better selection of gilts and boars for the production herd. Shotes fattened in a small group are not exposed to imported disease and parasites from strange hogs. Leaving pigs in one pen eliminates the feed efficiency slump that may follow movement to a new location.

Farrow-to-finish requires a larger capital investment than the use of specialized buildings because farrowing and nursery equipment are required in all pens. The system has peak labor demands that do not employ a full-time herdsman to the best advantage.

Washington D.C.

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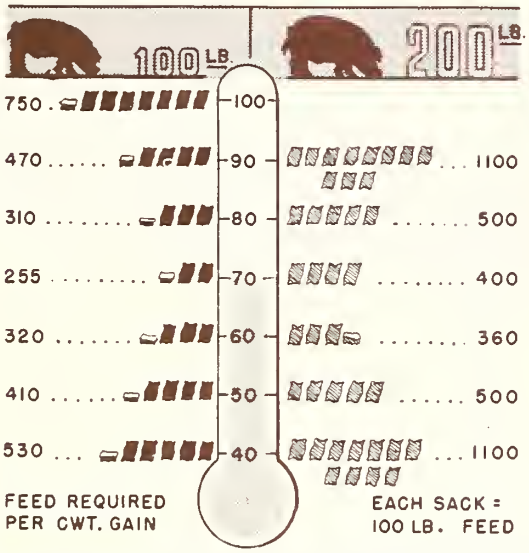
## VENTILATION AND HEAT

Temperature control promotes feed efficiency. Since feed is the most costly item in production, precautions to regulate temperature are well worth while. Temperatures between 50° and 80° F. are desirable.

Heat for pigs is supplied by brooders and by the bodies of pigs and sows. This swine unit has ceiling-mounted receptacles for 150-to 250-watt, infrared brooding lamps. No more than seven 250-watt lamps should be put on one 20-ampere circuit (12-gage wire).



*Effect of temperature on production efficiency of swine*

Porcelain receptacles and heavy duty mechanically protected extension cords that are too short to permit a powered light to rest on the litter are firesafe measures that should be followed. Infrared lamps are hung on a chain or wire 30 inches from the litter.

In winter electrical and body heat must be conserved, otherwise ventilation cannot remove enough moisture. Front closure panels may be weather stripped against the 2- by 6-inch head rail and the 2- by 4-inch side rails. The upper space between the 2- by 6-inch head rail and the 2- by 4-inch vent rail is filled with one or two layers of 4-mil transparent plastic. Cold air entering the vent under the southern eaves is warmed as it drops past the solar-heated plastic. The narrow width of the house makes gravity ventilation effective. The low roof line helps conserve winter heat.

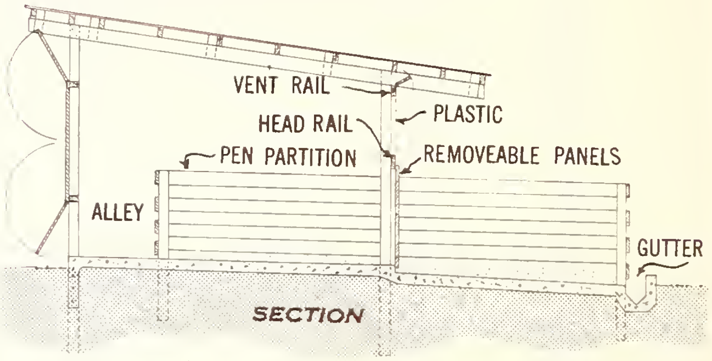
In summer, the southern panels are removed, plastic is taken from the upper space, and both upper and lower doors of the northern wall are opened to give a shaded area open to the breezes. Fog nozzles can be installed along the lower edge of the southern eave to cool the area.

In cold climates, the ceiling and north wall may be insulated. Peripheral slab insulation may be used inside the north wall.

## CONSTRUCTION

Good construction pays. It gives pride in ownership, promotes ease in handling swine, minimizes upkeep and stabilizes the business. Concrete should be mixed with air-entraining cement and with no more than 6 gallons of water per bag and should utilize 6 bags of cement per cubic yard of concrete. Set the guiding screeds firmly to cast a floor with a true surface. Finish the surface evenly but not slick with a magnesium or aluminum float. Keep the finished concrete damp for several days.

Cast the floor in 6-foot wide units. Leave a 2-inch wide crack between the floor sections so the partition curb, cast after the floor, will key between the floor slab sections. Place and brace accurately all treated posts before casting the floor. The roof may be built before the floor is cast. This helps brace everything in the proper place, and gives some protection to the concrete while it is curing.



Bottom boards on fences and posts set into the earth should be preservative treated to the equivalent of 6 pounds of creosote per cubic foot of wood. Boards on the outside fence should be liberally brushed with two coats of preservative.

Hinges, hasps, and outside nails should be hot-dip galvanized.

Complete working drawings may be obtained from the extension agricultural engineer at your State university. There may be a small charge to cover cost of printing and mailing.

If you do not know the location of your State university, send your request to Agricultural Engineer, Federal Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university.

ORDER PLAN NO. 5993. Farrow-to-finish Swine Unit.

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